UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,604	06/27/2003	Kobi Richter	4396-4001	7611

27123 7590 11/06/2006

MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

EXAMINER	
ISABELLA, DAVID J	

ART UNIT	PAPER NUMBER
3738	

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/607,604	RICHTER, KOBI	
	Examiner	Art Unit	
	DAVID J. ISABELLA	3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

4a) Of the above claim(s) *4-30,32-36 and 44-47* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,31,37-43,48 and 49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/16/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

The request for reconsideration filed 8/11/2006 has been entered. The claims being considered for further examination on the merits are claims 1-3, 31, 37-43, 48 and 49.

Response to Arguments

Applicant's arguments filed 8/11/2006 have been fully considered but they are not persuasive.

Applicant argues that Shannon does not utilize metal alloys, however, in column 6, lines 13-18, Shannon specifically recites alloys of the various metals. Furthermore, applicant argues that the metal alloy would only be at best bimetallic alloy. Even if examiner were to agree with applicant's argument, the metal composition of Shannon is an alloy. However, examiner does not agree with applicant's interpretation of Shannon. Examiner maintains that the statement that the wires are formed of metal such as an alloy of cobalt, chromium, nickel or molybdenum which may have iron as part of the mixture. Applicant is incorrect in stating that Shannon only states that cobalt-iron is appropriate for the construction of the stent in Shannon. In fact, Shannon specifically defines a type of metal alloy "Elgiloy" as an example of the alloy that could be used. Specifically, Elgiloy comprises a combination of cobalt, nickel, molybdenum and chromium with iron added to the alloy. Examiner agrees with applicant's argument that Shannon is silent to the alloy being amorphous. However, this deficiency is overcome with the teachings of the secondary reference to Masumoto. It is not essential that Masumoto specifically teaches that the metal alloy wires could find medical application.

What is critical in the application of the obvious rejection is the teachings of benefits to the material properties of an amorphous alloy. In this case Masumoto clearly states improved properties attain in the metal amorophous wire including high quality with superior chemical, electromagnetic and physical properties. Such improved properties would be equally applicable to devices in the medical field including implants which would enjoy the enhanced benefits of the metal alloy. While applicant argues that Masumoto does not spefically recited implantable medical device, applicant claims merely recite in the preamble an intended use "implantable medical device" as the basis of distinction of the claimed invention. It should be noted that Masumoto states that the wire could find applications in electric, electronic parts, electromagnetic parts, composite material and textile materials. Nowhere does Masumoto teach away from the field of medicine or implantable devices. In fact, medical devices in the form of textiles (ie woven stent structures), electronic devices (ie. pacemakers, ablation catheters, artificial muscles, etc), electromagnetic (ie heart pump) and composite (reinforced bone plates, implantable hearing devices, etc) are all well known in the art and Masumoto does not make a distinction of the enjoyed benefits between medical and non-medical devices.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 31, 37-43, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon et al. (USPN 5,928,279) in view of Masumoto et al. (USPN 4,614,221).

Shannon et al. discloses an implantable medical device in the form of a stent with all the elements of claims 1, 31, 37 and 41, but is silent to the alloy being amorphous and having a metalloid. See Figure 2 and column 6, lines 13-18 for a stent (14) being formed of wires (18), wherein the wires (18) are made from a cobalt metal alloy. Masumoto et al. teaches using a cobalt or iron based alloy (Co-Si-B or Fe-Cr-P-B) to manufacture a thin metal wire according to a specific process in order for the wire to be of high quality, have a circular cross-section and an amorphous structure that has superior chemical, electromagnetic and physical properties. See column 3, lines 23-36 and 62-66, column 7, lines 3-8 and columns 7-8, lines 68-2. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the stent (14) of Shannon et al. by replacing the cobalt alloy wires (18) with the cobalt or iron based alloy (Co-Si-B or Fe-Cr-P-B) thin metal wires taught by Masumoto et al., which are of an amorphous alloy having a metalloid, in order for the wires to be of high quality, have circular cross-sections and an amorphous structure that has superior chemical, electromagnetic and physical properties. Claims 37 and 41 are product-by-process claims, and according to MPEP § 2113, these claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. The patentability of a product does not depend on its method of production, but on the

product itself. Because Shannon et al., as modified by Masumoto et al., meet the structural limitations of claims 37 and 41 of a medical device containing a cobalt-based amorphous metal alloy having a metalloid, the claims are properly rejected thereby.

Claims 2 and 3, see Figure 2 for the medical implant being in the form of a stent (14), which is structurally capable of being permanently or temporarily implanted.

Claims 38-40 and 42-43 are product-by-process claims. They do not structurally further limit the claimed invention. See rejection to claims 37 and 41, supra.

Claim 48, see rejection to claim 1, supra, for the amorphous metal alloy comprising boron.

Claim 49, see rejection to claim 1, supra, for the amorphous metal alloy being an iron based alloy, and wherein the iron-based alloy contains Fe, Cr, B and P.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. ISABELLA whose telephone number is 571-272-4749. The examiner can normally be reached on MONDAY-FRIDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CORRINE MCDERMOTT can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAVID J ISABELLA
Primary Examiner
Art Unit 3738

DJI
10/15/2006